



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,850	10/16/2003	Ryoichi Otaki	KAM 20.684 (100799-00085)	9450
26304	7590	08/19/2005	EXAMINER	
KATTEN MUCHIN ROSENMAN LLP 575 MADISON AVENUE NEW YORK, NY 10022-2585			KRAUSE, JUSTIN MITCHELL	
			ART UNIT	PAPER NUMBER
			3682	
DATE MAILED: 08/19/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/688,850	OTAKI, RYOICHI	
	Examiner	Art Unit	
	Justin Krause	3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/6/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
2. The disclosure is objected to because of the following informalities: "radiallay" on page 40, line 7. It is believed that this word should be "radially".

Appropriate correction is required.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character " α " has been used to designate both the line of best fit in figure 5 and the lines outlining the contact section in figure 10.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Steel ball 19. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37

CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Claim Objections

6. Claim 8 and 15 objected to because of the following informalities: In claim 8, circumferential is misspelled and in claim 15, annular is misspelled. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, for numerous instances lack antecedent basis and indefiniteness. Applicant is required to review the

claims in full and make all necessary corrections. Several examples are include, but are not limited to the following:

Claim 1, it is not clear what the "power transmission direction" (line 4) is, further definition or clarification is needed. It is also not clear what defines a "no load state" (line 27), this phrase lacks antecedent basis. The equations " $P_{\text{mean}} \leq 0.3$ and $P_{\text{mean}} > (U_{\text{max}})^{1/2}/9$ is satisfied" (page 3, line 5). also require further clarification. The curve $P_{\text{mean}} = (U_{\text{max}})^{1/2}/9$ exceeds the limit of $P_{\text{mean}} \leq 0.3$ when plotted. The examiner believes what is meant is that both conditions must be satisfied, however the phrasing of the claim eludes to the requirement that $P_{\text{mean}} \leq 0.3$ as long as $P_{\text{mean}} > (U_{\text{max}})^{1/2}/9$ is satisfied.

Claim 6, in full, is unclear and "the other part" lacks antecedent basis.

Claim 8, reference is made to "recesses and lands" (page 4, line 29), this phrase lacks antecedent basis. Claim 9 is not clear due to the clarification required in claim 8. Claim 10 makes reference to "crowning" on the driving force transmission cylindrical surfaces. This also lacks antecedent basis and it is unclear what the intended meaning is. Clarification is required.

Claim 14 claims a single-row deep groove type bearing. It is not clear what is meant by "type". The examiner believes the intended meaning is a single-row deep groove ball bearing; clarification is needed.

Claim 15 recites "an electric motor" and continues to recite "an electric motor" again (page 5, line 27). It is not clear whether there is one electric motor or two. The

use of "it" has been noted. Applicant is advised to refrain from the use of pronouns within the claims and state the name of the entity being referenced in order to avoid confusion. The meaning of the phrase "...such that the one way clutch is connected only when the rotation of the outer race based on the power-on to the elastic motor is transmitted to the output shaft" (page 6, line 15). It is unclear what the meaning of this phrase is, and the elastic motor lacks antecedent basis.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claim 15, as best understood, is rejected under 35 U.S.C. 102(b) as being anticipated by Otaki et al. (US Patent 5,931,759). Otaki shows a traction roller speed reducing device having a motor (19) with an input shaft attached to the center roller (7) of the speed reducer unit. Otaki discloses a speed reducer unit (fig. 3) having 2 fixed rollers (12b and 12c) and one movable roller (12a) having an outer ring (9) eccentric to the center roller. In the event the speed of the outer ring becomes faster than the speed of the center roller, the rollers are retracted disengaging the input shaft from the output (Column 10 line 65 on), providing the function of a one-way clutch unit.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 16, as best understood, rejected under 35 U.S.C. 103(a) as being unpatentable over Otaki et al. in view of Itomi (US Patent 5,074,393).

Otaki discloses a traction roller speed reduction device as claimed above.

Otaki does not disclose that a roller clutch with an integrated bearing is a suitable type of one way clutch that may be used to prevent the output from overspeeding the input to the speed reduction device.

Itomi shows a one way clutch that is a roller clutch having an integrated ball bearing provided together (Figs. 1 and 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Otaki and Itomi and add a roller clutch with an integrated ball bearing set. The motivation being that the integrated unit fits into a smaller space than two separate components and is also easier to install. It would have been obvious to one of ordinary skill in the art at the time the invention was made that any type of one way clutch may be used in this application so long as the one way clutch prevents the speed of the output from exceeding the speed of the input.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6,397,808 shows an engine starter with a traction roller speed reducer that drives an endless belt.

6,279,708 shows a one way roller clutch with integrated bearing.

3,945,270 shows a traction roller speed reducer

4,709,589 shows a traction roller speed reducer

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Krause whose telephone number is 571-272-3012. The examiner can normally be reached on Monday - Friday, 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMK
8/17/05

[Signature]
DAVID FENSTERMACHER
PRIMARY EXAMINER

8/17/05